

Bachelor's Thesis Supervisor's Expert Opinion

Student: Adwoa Boahemaah
 Student Number: E21872
 Title of Bachelor's Thesis: Analysis and comparison of indicators for evaluation of Smart Cities development
 Aim of the Thesis: The aim of the thesis is to analyse indicators used to evaluate development of Smart Cities and compare selected cities in terms of most relevant indicators.
 Thesis Supervisor: Ing. et Ing. Martin Lněnička, Ph.D.
 Study Programme: B0688A140005 Informatics and System Engineering
 Academic Year: 2023/2024

Difficulty of the Topic

	Excellent	Very good	Satisfactory	Unsatisfactory	Cannot be evaluated
Theoretical knowledge	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Input data and their processing	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Methods used	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Thesis Evaluation Criteria

	Excellent	Very good	Satisfactory	Unsatisfactory	Cannot be evaluated
Degree of achievement of the aim of the thesis	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Original attitude to the topic processing	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Adequacy of the methods used	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Depth of analysis (relative to topic)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Logical structure of the thesis and scope	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Working with Czech and foreign literature including citations	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Formal arrangement of the thesis (text, charts, tables)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Language level (style, grammar, terminology)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Applicability of the Results of the Thesis

	High	Medium	Low	Cannot be evaluated
For theory	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
For practice	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Other Comments on the Thesis

The aim of this thesis was to analyse indicators used to evaluate development of Smart Cities and compare selected cities in terms of most relevant indicators. The student established four specific objectives to fulfil this aim. All of them are sufficiently answered in the thesis, the aim of the thesis was achieved. The student worked independently and with a positive approach. Particular parts of the thesis have been consulted on an ongoing basis. The student followed recommendations of the supervisor.

The first chapter deals with the theoretical background and presents related definitions. The second chapter is focused on identification and description of characteristics and indicators. It includes several tools and frameworks for evaluation of Smart Cities, which, however, are not used in the next sections of the thesis. The student also provided several tables summarizing information but only "Table 4: Indicators used to evaluate the development of Smart Cities" is used in the analysis. The third chapter presents data analysis and comparison of selected cities, including a research methodology and design applied for this. The student used the 2022 Cities in Motion Index to select representative cities, which were then analysed and compared in the context of smart economy, smart people, smart governance, smart environment, smart mobility, and smart living indicators. This chapter could be shortened slightly. Based on the findings, the student provided recommendations for Smart Cities to improve their development considering these indicators. These are summarized in the following chapter dealing with results and discussion.

The thesis contains some grammatical errors and stylistic weaknesses but is readable as a whole. The bachelor's thesis contributions are centred around providing best practices and recommendations for Smart Cities development in the context of respective indicators.

Comments on the Outputs from the Theses System

Highest degree of compliance: 3%. Similarity assessment: the thesis is not plagiarized.

Questions and Suggestions for Defence

What technologies and trends are crucial for the development of Smart Cities?

Describe how did you collect data and what sources you used to analyse Smart Cities in chapter 3.2?

Final Evaluation

I **recommend** the thesis for the defence.

I propose to grade this Bachelor's thesis as follows: **B**

In Pardubice 2.5.2024

Signature *Ing. et Ing. Martin Lněnička, Ph.D.* by own hand